

PROCEEDINGS
OF THE
CALIFORNIA ACADEMY OF SCIENCES
FOURTH SERIES

VOL. IX, No. 8, pp. 257-270

AUGUST 26, 1919

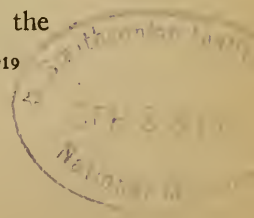
VIII

KEY TO THE NORTH AMERICAN SPECIES OF THE
DIPTEROUS GENUS MEDETERUS, WITH
DESCRIPTIONS OF NEW SPECIES

BY
MILLARD C. VAN DUZEE

In the preparation of the following key I have found it necessary to employ a few characters that sometimes are not readily distinguished, but for the species included it should work very well, although, perhaps rather difficult to use on account of these obscure characters. The bristles above the fore coxæ are often small and it may be difficult to determine their color. The small tooth at the base of the metatarsi of some of the males is easily overlooked but in those species that have this tooth the metatarsi are narrowed at base for a short distance and the tooth is inserted on the narrowed portion. The scutellum has either one or two pairs of bristles on its margin, but where there is but one pair there is often a pair of small hairs taking the place of the second pair of bristles, and where there are two pairs of bristles the outer pair are often reduced to about half the size of the central pair; this, however, should give the student little trouble in running the

August 26, 1919



species through the key. Under "31" is an alternative, referring to the length of the distal segment of the fifth vein, that may cause some confusion. I could find no satisfactory character to take the place of this, but in case of doubt, the following note may be of assistance. Of the four species that run through "31" to "32-34" *veles* Loew can be separated by its third and fourth veins being more widely divergent at their tips than in the other species, and in fact, than in most of the species of this genus; *modestus* V. D. has the halteres infuscated and the feet black; *californiensis* Wh. has the second joint of the hind tarsi fully twice as long as the first, while in *distinctus*, new species, it is only one and a fourth times as long as the first.

I have described several species from females, as it seems to me that in this genus the females are as a rule as easily separated as are the males, there being few secondary sexual characters in the males.

This paper is not a revision of our species but only intended as a help to those who, like myself, have tried to determine their material and have found most of their species undescribed. I hope someone with more material and better equipped for the work will make a thorough revision of our species.

TABLE OF NORTH AMERICAN SPECIES

1. Scutellum with one pair of bristles (there may be a pair of small hairs outside of these).....	2
- Scutellum with two pair of bristles (the outer ones may be small).....	11
2. Antennæ, proboscis and legs, including fore coxæ, yellow.....	
..... <i>novus</i> , new species	
- Antennæ, proboscis and more or less of the femora black.....	3
3. Thorax with distinct vittæ.....	4
- Thorax without distinct vittæ.....	10
4. Thorax with a median bluish green vitta.....	<i>obesus</i> , new species
- Thorax with a median brown stripe running its entire length.....	5
5. Wings with a brown cloud at base of third vein.....	6
- Wings without a distinct cloud at base of third vein.....	7
6. Tibiæ and tarsi yellow.....	<i>cuneiformis</i> , new species
- Tibiæ brownish; tarsi black with the base of metatarsi yellowish..	
.....(female of) <i>nitidiventris</i> , new species	
7. Abdomen bluish but with gray pollen; male with the front produced into a four-sided pyramid.....	<i>petulcus</i> Wh.
- Abdomen shining black, front normal.....	8
8. Tibiæ and tarsi mostly yellow.....	<i>similis</i> , new species
- Tibiæ and tarsi black or brown.....	9

9. Last section of fifth vein only a little longer than the cross-vein...
*æqualis*, new species
 - Last section of fifth vein one and a half times as long as the cross-
 vein*nitidiventris*, new species
10. Femora mostly yellow; mesonotum and abdomen light green.....
*longinquus*, new species
 - Femora mostly black; mesonotum coppery; abdomen dark green..
*æneus*, new species
 - Femora mostly black; mesonotum covered with thick gray pollen..
*falcatus*, new species
11. Bright metallic species..... 12
 - Darker species; generally blackish..... 16
12. Length about 2 mm.; fore tarsi of male with a compressed lobe on
 the third joint.....*lobatus* V. D.
- Length nearly 3 mm..... 13
13. Face and all coxæ metallic green; (Eastern states)..*aberrans* Wh.
 - Face, front and anterior part of the thoracic dorsum violet; coxæ
 blackish; (Guatemala) 14
14. Fore tarsi plain, regularly tapering from base to tip.....
*planipes*, new species
 - Fore tarsi ornamented 15
15. Fore tarsi a little widened from base to tip of second joint, third
 joint only a little narrower but suddenly contracted to a slender
 projection to which the fourth is attached; fourth and fifth
 joints slender*abruptus*, new species
 - Fore tarsi with the second and third joints very much compressed
 and expanded on upper edge; fourth and fifth joints minute....
*flavipes*, new species
16. Bristles above fore coxæ black..... 17
 - Bristles above fore coxæ white or yellowish..... 28
17. Second joint of hind tarsi more than twice as long as first..... 18
 - Second joint of hind tarsi not more than twice as long as first..... 19
18. Legs altogether black*nigripes* Loew.
 - Tibiæ largely yellowish*vittatus*, new species
19. Antennæ wholly black 20
 - Antennæ partly yellow 22
20. Knob of the halteres black.....*halteralis*, new species
 - Knob of the halteres yellow 21
21. Second joint of hind tarsi fully twice as long as first.....
*vittatus*, new species
 - Second joint distinctly less than twice as long as first..... 22
22. Second joint of hind tarsi one and a half times as long as first;
 last section of the fifth vein only a little longer than the cross-
 vein*obscuripennis*, new species
 - Second joint of hind tarsi one and a fourth times as long as first;
 last section of fifth vein two and a fourth times as long as the
 cross-vein*frontalis*, new species
23. Thorax with distinct gray vittæ..... 24
 - Thorax without distinct gray vittæ..... 25
24. With a distinct gray stripe on each side of the acrostichal bristles;
 male with prominent yellow hairs at tip of hind tibiæ.....
*viduus* Wh.
 - Thorax with four gray vittæ.....*aldrichii* Wh.
25. Mesonotum with thick brown pollen; length 5 mm.....
*emarginatus* V. D.
 - Mesonotum with thin grayish pollen; length 3.25 mm. or less..... 26
26. Last section of the fifth vein three-fourths as long as the cross-
 vein in the male and a little longer than that vein in the female.
*oregonensis*, new species

- Last section of the fifth vein one and a half times as long as the cross-vein	27
27. Tegular cilia pale	<i>maurus</i> Wh.
- Tegular cilia black	<i>cærulescens</i> Malloch.
28. Abdomen blue	29
- Abdomen bronzed, green or black.....	30
29. Thorax with yellowish vittæ; antennæ black.....	<i>aurivittatus</i> Wh.
- Thorax with opaque gray pollen; antennæ with first two joints yellow	<i>cyanogaster</i> Wh.
30. Males and females	31
- Males only	40
31. Thorax with distinct vittæ.....	32
- Thorax without distinct vittæ.....	37
32. Last segment of the fifth vein only half as long as the cross-vein.....	<i>princeps</i> Wh.
- Last segment of the fifth vein as long or longer than the cross-vein	33
33. Last segment of the fifth vein about the same length as the cross-vein	34
- Last segment a little longer than the cross-vein.....	36
34. Legs and feet wholly black; knobs of halteres infuscated.....	<i>modestus</i> V. D.
- Tips of femora, tibiæ, base of tarsi and knobs of halteres yellow..	35
35. Tips of third and fourth veins close together (typical of genus).....	<i>californiensis</i> Wh.
- Tips of third and fourth veins a little wider apart than is usual in the genus	<i>veles</i> Loew.
36. Abdomen and pleuræ black; face opaque; thoracic vittæ very distinct; tips of third and fourth veins rather widely separated.....	<i>veles</i> Loew.
- Abdomen, pleuræ and face distinctly green; thoracic vittæ less distinct; tips of third and fourth veins close together (as is usual in the genus)	<i>distinctus</i> V. D.
37. Legs yellow; cross-vein angulated at its center and with a stump-vein	<i>appendiculatus</i> Wh.
- Legs black; cross-vein normal.....	38
38. Knobs of halteres infuscated, at least on one side..	<i>modestus</i> V. D.
- Knobs of halteres yellow	39
39. Last section of fifth vein only half as long as the cross-vein.....	<i>xerophilus</i> Wh.
- Last section of fifth vein a little longer than the cross-vein (specimens in which the thoracic vittæ are almost obsolete).....	<i>veles</i> Loew.
40. Posterior cross-vein with a stump-vein near its middle.....	<i>xerophilus</i> Wh.
- Cross-vein normal	41
41. Hind matatarsus with a small tooth near its base.....	42
- Hind matatarsus without such a projection, not narrowed at base..	43
42. Small species, 2 mm.; third and fourth veins rather widely separated	<i>veles</i> Loew.
- Larger species, over 3 mm.; third and fourth veins normal.....	<i>californiensis</i> Wh.
43. Last section of fifth vein one half the length of the cross-vein.....	<i>xerophilus</i> Wh.
- Last section of fifth vein and the cross-vein of nearly equal length.....	<i>modestus</i> V. D.

DESCRIPTIONS OF NEW SPECIES

1. *Medeterus falcatus*, new species

Male and female: Length 1.75 mm. Face and front covered with gray pollen; antennæ black, third joint small, slightly emarginate at tip where the arista is inserted; orbital cilia white; thorax bronze black but so thickly covered with gray pollen as to conceal the ground color and appear gray in unrubbed specimens, without distinct vittæ; bristles above the fore coxæ small, white; scutellum with two bristles and two small hairs on the margin; abdomen dark greenish, obscured with gray pollen; hypopygium of male black, shining, rather thick; its appendages small, yellowish; coxæ and femora black; more or less of the femora apically, the tibiæ and tarsi yellow, the tips of the tarsi darkened; hind tibiæ somewhat enlarged at tip with a short, stout, hooked spur, in the female the hooked spurs are wanting; second joint of hind tarsi a little longer than the first; tegulæ, their cilia and the halteres yellow; wings hyaline, slightly gray, with yellowish veins; distal segment of fifth vein more than one and a half times as long as the cross-vein.

Described from four males and ten females taken by me at Fresno, Cal., May 6, 1915, while sweeping alfalfa in the park; and one male taken at San Francisco, Cal., May 22, 1915.

Holotype, male (No. 512), from Fresno, in collection of the California Academy of Sciences. Allotype, female, in collection of the author. Paratypes in both collections.

2. *Medeterus similis*, new species

Male and female: Length 2.2 mm. Face rather wide, covered with gray pollen, below the suture more shining and black with slight greenish reflections; front covered with gray pollen; antennæ small, black; proboscis of moderate size, shining black with yellow hairs; thorax covered with gray pollen leaving only a median, shining, bronze-brown vitta which extends to the hind margin of the scutellum when viewed from behind; acrostichal bristles small, in two rows; scutellum with two bristles; bristles above fore coxæ very small, white; abdomen black with a very slight green tinge, shining but somewhat dulled with gray pollen, its hairs pale; coxæ and femora black; fore coxæ with rather long white hairs; about the apical third of femora tibiæ and most of the basal two or three joints of the tarsi yellow; tarsi blackened towards the apex; hind tibiæ a little enlarged at tip and with bent claw-like spurs; second joint of hind tarsi more than one and a half times as long as the first; tegulæ, their cilia and the halteres yellow; wings slightly tinged with gray; veins black; last section of the fifth vein a little more than one and a half times as long as the cross-vein.

Described from three males and five females taken by me at Los Angeles, Calif., Apr. 27, and May 1, 1915, and one male taken at Fresno, Calif., May 6, 1915. This is closely related to *falcatus*, new species, but has the second joint of hind tarsi more than one and a half times as long as the first while in

falcatus it is scarcely one and a fourth times as long as the first; *similis* is also larger and the thorax has a distinct median vitta which is not found in *falcatus*.

Holotype, male (No. 513), from Los Angeles, in collection of the California Academy of Sciences. Allotype, female from Los Angeles, in collection of the author. Paratypes in both collections.

3. *Medeterus novus*, new species

Male: Length 1.75 mm. Face and front green with whitish pollen; proboscis rather large, yellow, shining; antennæ yellow, small; arista dorsal, pubescent; thorax, including the pleuræ, light green dulled with gray pollen; scutellum with the posterior margin yellow, covered with white pollen, and with one pair of long, very slender bristles; acrostichal bristles small; the bristles of thorax and scutellum yellowish brown in certain lights; bristles above fore coxæ pale yellow; abdomen dark greenish, more shining than the thorax; hypopygium brownish yellow; legs including fore coxæ pale yellow with yellow hairs and bristles; tarsi scarcely darkened at tip; first joint of hind tarsi scarcely half as long as second; tegulæ, their cilia and the halteres pale yellow; wings hyaline, tinged with gray; venation typical of the genus; veins yellowish brown, more yellow at the root of the wing; fourth vein ending in the apex of the wing close to the tip of the third; last section of fifth vein one and a half times as long as the cross-vein.

Described from one male taken at Great Falls, Va., June 12, by Mr. Nathan Banks.

The yellow antennæ, legs and bristles of this species together with its small size would suggest its being a *Thrypticus*, but the venation is that of a typical *Medeterus*, as is also its large proboscis and the form of its hypopygium.

Holotype, male, in collection of the author.

4. *Medeterus longinquus*, new species

Female: Length 2 mm. Face and front green with a very little gray pollen; antennæ black, third joint small; arista apical; proboscis small; thorax and scutellum light green, somewhat shining but dulled with gray pollen; acrostichal bristles in two rows; lateral and posterior bristles of the thorax large, black; scutellum with one pair of bristles; abdomen darker green than the thorax, shining, its hairs pale; coxæ and base of femora blackish; apical half or more of fore and middle femora, tips of hind femora, all tibiæ and tarsi pale yellow; last tarsal joint blackened; extreme tips of all tarsal joints brownish; hind femora with rather conspicuous yellow hairs; second joint of hind tarsi one and a fourth times as long as the first; tegulæ, their cilia and the halteres yellow; wings grayish; veins yellowish, brown, more brown on the outer and costal portion; last section of the fifth vein three times the length of the cross-vein.

Described from one female taken by me at Sacramento, Cal., June 4, 1915. The name was selected because the cross-vein was further from the wing margin than in the known related species.

Holotype, female, in collection of the author.

5. *Medeterus æneus*, new species

Male: Length 2 mm. Face dark green, shining but dulled with pollen; front opaque with gray pollen; proboscis rather small, black; antennæ small, black, third joint rounded at tip; arista apical; lower orbital cilia pale. Mesonotum bronze brown with purplish or coppery reflections and dulled with gray pollen, without any trace of a vitta; center of posterior depressed area green; pleuræ dulled with gray pollen, ground color blackish with green reflections; bristles above fore coxæ yellowish; acrostichal bristles small, in two rows; an area of small bristles above the humeri; dorsal bristles small in front, larger posteriorly; scutellum with one pair of large bristles and a pair of minute hairs just in front of them on the margin; abdomen dark bronze green, first segment more bluish; hypopygium of moderate size, black, its appendages yellowish; coxæ and femora black; broad tips of femora, the tibiæ and tarsi yellow; last tarsal joint of all feet black; fore tibiæ mostly brownish; hind metatarsi half the length of the second joint; tegulæ and halteres yellowish; tegular cilia white; wings grayish hyaline; last section of fourth vein slightly arched so that the third and fourth veins are nearly parallel at their tips; last section of fifth vein one and a fourth times as long as the cross-vein; veins black.

Described from one male taken by me at Los Angeles, Calif., Apr. 27, 1915.

Holotype, male, in collection of the author.

6. *Medeterus cuneiformis*, new species

Female: Length 2 mm., of wing 2.5 mm. Face below the suture greenish with thin gray pollen; face above the suture and the front thickly covered with gray pollen; proboscis rather small, black; antennæ black, third joint of moderate size, rounded, about as wide as long; arista subapical; orbital cilia white, long; mesonotum and scutellum greenish gray, nearly opaque with gray pollen and with a sharply defined, brown median vitta which extends from the front almost to the hind margin of the scutellum; scutellum with one pair of bristles; pleuræ and coxæ black, covered with gray pollen; fore coxæ with pale hairs on the front surface; acrostichal bristles in two rows; four dorso-central bristles on each side inserted in small brown dots; bristles above fore coxæ small, white; abdomen dark green with pale hairs; femora black; broad tips of femora, the tibiæ and tarsi yellow; tarsi darkened towards their tips; second joint of hind tarsi one and a half times as long as the first; tegulæ and halteres yellow, cilia of the tegulæ white; wings grayish hyaline, yellow at base, with a cuneiform, brown spot filling the angle between the second and third veins at the base of the third vein and extending a little back of that vein; third and fourth

veins rather closely approximated at their tips; last section of fifth vein twice as long as the cross-vein; veins brown, becoming darker towards the root of the wing.

Described from four females taken by me at Los Angeles, Cal., Apr. 27 and May 4, 1915.

Holotype, female (No. 514), in collection of the California Academy of Sciences. Paratypes in collection of the author.

7. *Medeterus nitidiventris*, new species

Male and female: Length 2 mm., of wing the same. Face and front covered with gray pollen, face below the suture more blackish; antennæ black, small, third joint rounded, small, scarcely as wide as long; proboscis rather small, black; inferior orbital cilia pale; thorax gray with a median brown vitta which extends from the front nearly to the posterior margin of the scutellum, in some females it is somewhat obliterated posteriorly; pleuræ black with gray pollen; acrostichals in two rows; four dorso-centrals inserted on minute brown dots; scutellum with one pair of bristles; abdomen black, shining, depressed, with gray pollen on the sides, its hairs pale; hypopygium rather slender, extending nearly to the base of the venter, black with its appendages black or testaceous; legs black, knees yellow; tibiæ in the females sometimes yellowish brown; second joint of the hind tarsi of the male about one and a half times, of the female one and a fourth times, as long as the first; tegulæ yellow with a narrow brown border and pale cilia; halteres yellow; wings grayish hyaline; veins brown, a little yellowish at the root of the wing; last section of fifth vein one and a half times as long as the cross-vein; in the female there is a brownish cloud at the base of the third vein which is sometimes very faint, in others distinct but not as sharply defined as in *cuneiformis*. This cloud extends along the third vein, more or less distinctly, nearly to its tip, tinging nearly the whole of the cell between the second and third veins with brown.

Described from one male and two females taken by me at San Francisco, Calif., May 12, to 27, 1915.

This species is very like *cuneiformis* but differs in having the abdomen shining black, the legs wholly black except the knees, and in having the brown cloud more diffused not sharply defined as in *cuneiformis*.

Holotype, male, and paratype in collection of the author.

Allotype, female (No. 515), in collection of the California Academy of Sciences.

8. *Medeterus obesus*, new species

Female: Length 2 mm., of wing 2.25 mm. Face and front blue-green, shining, with but little pollen; antennæ very small, black; arista about apical; proboscis small, black; orbital cilia pale; thorax bluish green with purple reflections, rather thickly covered with brownish pollen, which is more gray on the upper part of the pleuræ; the space between the rows

of acrostichal bristles shining bluish green as is also the center of the scutellum; scutellum with one pair of bristles and a pair of small hairs on the margin; abdomen more green and shining than the thorax; coxæ and femora black; extreme tips of the femora, the tibiæ and tarsi yellow; tarsi a little darker at tips; second joint of hind tarsi nearly twice as long as first; tegulæ, their cilia and the halteres yellow; wings hyaline slightly tinged with yellowish gray; veins yellowish brown; costa brown; last section of fifth vein a little longer than the cross-vein.

Described from one female taken by me at East Aurora, Erie Co., N. Y., July 28, 1915.

A stout little species with the thorax rather thick and the scutellum with one pair of bristles.

Holotype, female, in collection of the author.

9. *Medeterus æqualis*, new species

Male and female: Length 2 mm. Face narrow, brown; proboscis shining black, rather small; antennæ black, small; thorax coppery, with thick gray pollen, leaving a rather sharply defined median vitta which extends to the scutellum but is not very distinct on the depressed area, and a lateral, broad, not distinctly defined vitta on each side of the dorsum; acrostichal bristles represented by a few small bristles in front; bristles above fore coxæ black, very small; scutellum with one pair of bristles; in the female some of the bristles of the thorax are yellowish; abdomen shining black but dulled with gray pollen; hypopygium long and slender, shining black; coxæ and legs black; knees and fore tibiæ more yellowish; second joint of hind tarsi one and a half times as long as the first; tegulæ, their cilia and the knobs of the halteres yellow; wings grayish hyaline; distal segment of fifth vein only a little longer than the cross-vein; fourth vein ending just before the tip of the wing and close to the tip of the third vein; veins black, only a little paler at the root of the wing.

Described from two males and one female taken by me at San Diego, Calif., Apr. 5 and 12, 1915.

Holotype, male (No. 516), in collection of the California Academy of Sciences. Allotype, female, and paratype in collection of the author.

10. *Medeterus frontalis*, new species

Female: Length 3 mm., of wing the same. Face black, below the suture slightly greenish and shining; front thickly covered with brown pollen except a narrow border of gray pollen along the orbits; palpi and proboscis not very large, black with pale hairs; antennæ black, small, third joint very small; arista almost dorsal, as long as the height of the head; lower orbital cilia yellow; thorax with greenish ground color, thickly covered with pollen which is brown on the center of the dorsum and more gray on the posterior depressed area, scutellum and pleuræ; bristles well developed; acrostichal bristles strong, in two rows; scutellum with two pair of bristles, the outer pair about half as large as the central; bristles above fore coxæ small, black; abdomen shining black, with black hairs; legs black with only the tips of the femora yellow; fore coxæ with minute pale hairs and small

black bristles the whole length of the front surface; each femur with a row of stiff hairs below extending its whole length but larger towards the apex; hind tarsi with the second joint one and a fourth times as long as the first; tegulæ, their cilia and the halteres yellow; wings tinged with gray; veins brown; costa black; last section of fifth vein about two and a fourth times as long as the cross-vein.

Described from one female taken by me at Hamburg, N. Y., August 10. Another female taken at the same locality, May 14, has the cross-vein twice its length from the wing margin and the face and front more greenish but undoubtedly it belongs to the same species as the type specimen. I also have a male taken by Mr. Ouellet at Joliette, Quebec, July 13.

Holotype, female, in collection of the author.

11. *Medeterus distinctus*, new species

Female: Length 2.5 mm. Face rather wide, green, darker and more shining below the suture; proboscis black, shining, rather small and with yellow hairs; front opaque with gray pollen; antennæ black, third joint rather small, rounded, a little flattened in outline at tip; arista nearly apical; dorsum of thorax bronze-brown, shining, the gray pollen forming two vittæ, one each side of the acrostichal bristles, which unite with the gray of the posterior depressed area, and a less distinct vitta, abbreviated anteriorly, each side above the root of the wings; disc with a fine greenish line between the two rows of strong acrostichal bristles; bristles above fore coxæ small, yellow, appearing brownish in certain lights; scutellum with four bristles, the outer pair about half as large as the central; pleuræ and scutellum green with whitish pollen; abdomen green, the last two segments more black; hairs of the abdomen yellow; coxæ and legs black with yellow hairs; knees narrowly yellow; the yellowish hairs of the fore coxæ long and stiff; hind coxæ with an erect black bristle; second joint of hind tarsi one and a fourth times as long as the first; tegulæ yellow, knob of halteres yellow with a brownish spot on one side; wings slightly tinged with gray; veins brown, yellow at base; third and fourth veins rather closely approximated at their tips; fourth vein ending just before the tip of the wing; last section of fifth vein a little longer than the cross-vein.

Described from one female taken by me at East Aurora, Erie County, N. Y., June 25.

The greenish color of the face and body, less distinct vittæ of the mesonotum and the proximity of the tips of the third and fourth veins separate this species from *veles* Loew.

Holotype, female, in collection of the author.

12. *Medeterus obscuripennis*, new species

Female: Length 2 mm., of wing the same. Face and front covered with brown pollen; face below the suture more shining; antennæ black, third joint small, rounded; arista nearly apical; thorax dull green, with gray

pollen; marked with a quite distinct median, shining bronze vitta between the rows of acrostichal bristles, continued as a faint brownish line across the posterior depressed area and slight indications of lateral vittæ; bristles above fore coxæ black, small; scutellum with two pairs of bristles, the outer being nearly as large as the central pair, the latter not as long as in some species. Abdomen dark green, almost black, shining but dulled with pollen; coxæ black; legs brown with very short hairs; knees a little yellowish; tibiæ without bristles except a very small one on middle tibiæ at basal third; second joint of hind tarsi one and a half times as long as the first; tegulæ, their cilia and the knobs of the halteres yellow; wings tinged with brownish, especially on the basal half; veins brown; the tips of third and fourth veins rather close together; last section of fifth vein a little longer than the cross-vein.

Described from one female taken on the Berkeley Hills, in Alameda Co., Calif., June 20, by E. T. Cresson, Jr.

Holotype, female (No. 6116), in collection of the American Entomological Society.

13. *Medeterus halteralis*, new species

Male: Length 2.25 mm. Altogether black; face shining black below the suture; upper part of the face and the front opaque with brown pollen; cilia of the lower orbit pale brownish; proboscis large, shining black; thorax black, dorsum thickly and uniformly covered with brown pollen; acrostichal bristles in two rows, small; besides the larger bristles there are some scattering small ones on the fore part of the dorsum. Pleuræ and abdomen a little shining, the latter with black hairs; bristles above fore coxæ blackish, slender; scutellum with four bristles; hypopygium rather short, black, somewhat shining; its appendages long, brownish; coxæ and legs black; fore coxæ with minute brown hairs on the front surface; hind metatarsi half as long as the second joint; tegulæ yellowish brown with a brown border and yellowish cilia; stem of the halteres yellowish brown, knob blackish. Wings grayish hyaline; veins black; last section of fifth vein about equal in length to the cross-vein; root of the wing yellowish brown.

Female: Length 2.75 mm. Legs paler, root of wings, halteres and tegulæ, except the brown border, more yellowish; the bristles above the fore coxæ dingy white; ovipositor blackish.

This female seems to be somewhat immature and although taken on the same tree and at the same time as the male described above it may prove to be a distinct species.

Described from one male and one female which I took at Brule Lake, Ont., Aug. 2, 1911.

This species is very close to *M. modestus* V. D. (Ent. News, Vol. xxv, p. 440), but this male has blackish bristles above the fore coxæ while *modestus* has conspicuous white bristles; the lower part of the face also is more blackish and the halteres are more infuscated in this species.

Holotype, male, in collection of the author.

14. *Medeterus vittatus*, new species

Male: Length 2 to 2.25 mm. Face dark blue-green below the suture, the suture and above including the front thickly covered with brown pollen; proboscis swollen, shining black, as are also the palpi; antennæ small, black, third joint as long as broad, moderately flattened at tip; arista apical, pubescent; thorax brown with two, more or less distinct, pollenose vittæ; acrostichal bristles in two rows, the space between them a little darker than the rest of the dorsum; prescutellar depression and the pleuræ with gray pollen; scutellum black with thin gray pollen and four bristles on the margin, the outer pair the shortest; abdomen shining black with a slight greenish tinge and yellowish hairs, the last segment brownish; hypopygium (Fig. 8) large, shining black, with a well defined dull area covered with pale hairs on the left side, its appendages black; coxæ black; hairs on the fore coxæ pale brown, abundant and long; bristles above fore coxæ black; femora black at base, becoming yellow apically; tibiæ and tarsi yellow; extreme tips of tibiæ and of the tarsal joints usually brownish; first joint of hind tarsi a little less than half as long as the second; tegulæ, their cilia and the halteres whitish; wings with typical venation; veins brown; last section of the fifth vein slightly longer than the cross-vein.

Female: Agrees with male in all but sexual characters. Ovipositor brown with several slender hairs at tip.

Described from nine males and four females, taken by me at Kearney, Ont., July 26, Toronto, Ont., Sep. 2, Niagara Falls, Ont., July 20, and Erie Co., N. Y., July 9.

This is closely related to *nigripes* Loew but it has quite abundant and conspicuous brown hair on the front surface of the fore coxæ, the legs are largely yellow and the first joint of the hind tarsi is somewhat longer in proportion to the second.

Holotype, male (No. 517), from Kearney, Ont., in collection of the California Academy of Sciences. Allotype, female from Kearney, Ont., in collection of the author. Paratypes in both collections.

15. *Medeterus oregonensis*, new species

Length of male 4 mm., of female 3 mm. Face rather narrow, dark metallic blue with a transverse band of white pollen at the suture; front black (the specimens described seem somewhat greasy); first antennal joint dark reddish yellow, second and third black; third joint scarcely as long as wide, rounded at tip, with an apical arista; proboscis black with a few pale hairs; lower orbital cilia yellowish white, rather long; thorax black with brown pollen on the anterior portion of the dorsum and whitish pollen on the posterior depression and on the scutellum. In the male there is a brassy median vitta on the dorsum which extends to the scutellum, three or four black bristles above the fore coxæ and two pair on the margin of the scutellum; abdomen shining with basal third of segments pale greenish, the apical two thirds more bronze-brown; hypopygium shining black, its appendages black; coxæ, femora and tibiæ shining black, tarsi dull black; fore coxæ with brownish black hairs and bristles, hairs of the legs dark brownish, in certain lights appearing more reddish. The female has

the knees dark yellowish; the second joint of hind tarsus one and three-fourths times as long as first. Tegulæ and halteres brown, the former with brownish cilia showing white reflections in certain lights. Wings tinged with grayish; veins brown; venation normal. In the male the last section of the fifth vein is three-fourths as long, in the female a little longer than, the cross-vein; tips of third and fourth veins rather closely approximated in the female, slightly more widely separated in the male; fourth vein ending almost exactly in the apex of the wing.

Described from two males and one female from Ashland, Oregon, reared June 16, 1916, from *Pinus ponderosa*, by F. P. Keen. This species differs from *maurus* Wh. in having the antennæ darker, the cross-vein nearer the margin of the wing, the middle tibiæ wholly black in both male and female (in *maurus* they are yellow in the male), and the appendages of the hypopygium black, yellowish in *maurus*.

Holotype, male, and allotype, female, in collection of the United States National Museum; paratype in collection of the author.

16. *Medeterus planipes*, new species

Male: Length 2.8 mm. Face, front, and thorax bright shining green with violet reflections; dorsum of thorax with a little brownish gray pollen; antennæ blackish, small with slender arista; orbital cilia and bristles above fore coxæ black; scutellum with four bristles; abdomen shining green; hypopygium stout, not elongated, black with slender yellowish appendages; fore coxæ black with yellow tips; middle and hind coxæ yellowish; trochanters yellow; femora black with yellow hairs; tibiæ and tarsi pale yellow with fifth tarsal joint black and small, nearly as wide as long; fore tarsi plain, tapering from base to tip; fourth and fifth joints of nearly equal length; hind metatarsi a little shorter than the second joint; tibiæ with pale hairs; middle tibiæ with one black bristle above, three on the side on basal third, and black spurs at tip; posterior pair with a few yellow bristles near the tip and one black bristle near the base and another at tip; tegulæ brownish, their cilia and the halteres yellow; wings grayish with typical venation; last section of fifth vein about as long as the cross-vein; costa brown, veins yellowish.

Female: A female taken with the male described above has the first antennal joint yellow and all coxæ blackish.

Described from one male and one female taken at Los Amates, Guatemala, Feb. 18.

Holotype, male, and allotype, female, in collection of the author.

17. *Medeterus flavipes*, new species

Male: Length 3 mm. Face and front violet, shining; thorax green with violet reflections on its anterior half, almost wholly violet along the front; abdomen shining green; antennæ black small; lower orbital cilia black, but with pale hairs on the lower part of the head behind the cilia;

coxæ and femora black; fore tibæ blackish; middle and hind tibæ yellow with black hairs, the latter with a row of yellow hairs below and rather long numerous yellow bristles above, the bristle at tip black; fore tarsi yellowish, first joint a little compressed and considerably widened at tip, second and third joints much compressed, second about as long as wide with a thumb-like projection above at tip; third much expanded upwards; fourth and fifth minute, black or partly black; middle and hind tarsi infuscated towards their tips; their second joint one and a half times as long as first; tegulæ, their cilia and the halteres yellow; wings with typical venation; last section of fifth vein about as long as the cross-vein.

Apparently there are six bristles on the edge of the scutellum, but in the type specimen they are all broken off, leaving only the scars to mark the places of insertion.

Described from a single male taken at Los Amates, Guatemala, Feb. 18.

Holotype, male, in collection of the author.

18. *Medeterus abruptus*, new species

Male: Length 2.8 mm. Face, front, and anterior part of the thorax violet, remainder of the thorax and the abdomen shining green; first antennal joint black (other joints missing in type); lower orbital cilia yellowish; scutellum with four bristles; hypopygium black with yellow appendages; coxæ and fore and middle femora blackish; fore femora broadly, middle narrowly, yellow at tip; hind femora yellow, blackened a little at base; tibæ and tarsi pale yellow with yellow hairs and bristles, the bristles at tip of tibæ and one small one near base of middle tibæ black; tarsi a little infuscated at tip; fore tarsi one and a half times as long as their tibæ; first three joints a little compressed with a fringe of small black hairs above; first joint nearly as long as the three following taken together; third joint abruptly narrowed to a slender projection to which the fourth joint is attached; fourth small but slightly swollen; fifth slender; the projection at tip of third joint together with the fourth and fifth joints form a very slender tip to the fore tarsi; second joint of hind tarsi nearly twice as long as the first. Tegulæ their cilia and the halteres yellow. Wings with typical venation; veins and costa yellowish; last section of fifth vein only slightly longer than the cross-vein.

Described from one male taken at Pt. Barries, Guatemala, March 3.

M. planipes, *flavipes* and *abruptus* are remarkably alike in appearance but differ widely in the formation of the fore tarsi.

Holotype, male, in collection of the author.